

**DETAILED ACTION**  
**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven Raney on 09/28/2009.

The claims have been amended as follows:

1. (Currently Amended) A telecommunications device for processing packet data received over a communications network, wherein the telecommunications device includes a plurality of data processors, the telecommunications device comprising:

a plurality of control processors, each control processor configured to manage data routing paths between data processors in the plurality of data processors according to the corresponding physical locations of the data processors in the telecommunications device; and

a plurality of logical nodes, wherein each logical node includes two or more data processors in the telecommunications device and is associated with a control processor in the plurality of control processors such that each control processor is

coupled to a first data processor of its associated logical node and manages data routing paths within the logical node in relation to said first data processor; and

a plurality of physical slots, wherein each physical slot is coupled to a data processor in the plurality of data processors;

wherein a data routing path from a first physical slot location to a second physical slot location in the telecommunications device is mapped to a data routing path from a third physical slot location to a fourth physical slot location; and

wherein each logical node is associated with a distinct network service provider and routes data for the network service provider using the one or more data processors included in the logical node according to the data routing paths.

2. (Currently Amended) The telecommunications device of claim 1, further comprising a power source configured to power the plurality of logical nodes.

3-5. (Canceled)

6. (Currently Amended) A telecommunications shelf for sending packet data to destinations on a communications network, ~~including a plurality of slots configured to connect to data processors~~, the telecommunications shelf comprising:

a plurality of slots configured to connect to data processors, wherein each slot is associated with a slot position;

a first logical shelf including a first set of two or more data processors, wherein each data processor in the first set is connected to a first set of one or more slots in the plurality of slots; ~~and~~

a second logical shelf including a second set of two or more data processors, wherein each data processor in the second set is connected to a second set of one or more slots in the plurality of slots;

a first control processor separate from the first set of the data processors configured to manage data routing paths between the data processors of the first set according to their corresponding slot positions in the first logical shelf; ~~and;~~ and

a second control processor separate from the second set of data processors configured to manage data routing paths between the data processors of the second set according to their corresponding slot positions in the second logical shelf,

wherein the first control processor is configured to map data routing paths based on the slot locations of the data processors in the first set of data processors;

wherein the second control processor is configured to map data routing paths based on a physical location of the data processors in the second set of data processors; and

wherein the first logical shelf is associated with a first network service provider that transfers data using the first set of data processors and the second logical shelf is associated with a second network service provider that transfers data using the second set of data processors.

7. (Canceled)

8. (Previously Presented) The telecommunications shelf of claim 6, wherein the first control processor is configured to manage data routing paths for the first entity and the second control processor is configured to manage data routing paths for the second entity.

9-10. (Canceled)

11. (Previously Presented) The telecommunications shelf of claim 6, further comprising a power source configured to provide power to the first and second set of data processors in the first and second logical shelves.

12. (Currently Amended) A method for routing packet data over a communication network using a telecommunications device that includes a plurality of data processors, the method comprising:

configuring a first set of two or more data processors in the plurality of data processors for a first logical node in the telecommunications device;

configuring a second set of two or more data processors in the plurality of data processors for a second logical node in the telecommunications device;

managing routing paths within the first logical node with a first control processor distinct from the first set of data processors;

managing routing paths within the second logical node with a second control processor distinct from the second set of data processors;

receiving data associated with a first network service provider, comprising receiving data for a first routing path from a first location to a second location in the

telecommunications device and determining a first mapping of the first control processor for routing the data from a third location to a fourth location in the telecommunications device;

routing the data associated with the first network service provider between data processors of the first logical node according to a the first mapping of the first control processor;

receiving data associated with a second network service provider; and

routing the data associated with the second network service provider between data processors of the second logical node according to a second mapping of the second control processor.

13. (Currently Amended) The method of claim 12, ~~wherein receiving data associated with the first network service provider comprises receiving data for a first routing data path from a first location to a second location in the telecommunications device, and further comprising:~~

~~determining a third and fourth location in the telecommunications device in which to route the data associated with the first network service provider, wherein routing the data associated with the first network service provider comprises routing the data from a data processor in the third location to a data processor in the fourth location, the third and fourth data processors included in the first set of data processors.~~

14. (Previously Presented) The method of claim 13, wherein receiving data associated with the second network service provider comprises receiving data for a

second routing data path from a fifth location to a sixth location in the telecommunications device, and further comprising:

determining a seventh and eighth location in the telecommunications device in which to route the data associated with the second network service provider, wherein routing the data associated with the second network service provider comprises routing the data from a data processor in the seventh location to a data processor in the eighth location, the seventh and eighth data processors included in the second set of data processors.

15. (Canceled)

16. (Previously Presented) The method of claim 12, wherein the first control processor manages data routing paths for the first network service provider and the second control processor manages data routing paths for the second network service provider.

17. (Currently Amended) The telecommunications device of claim 1, wherein the packet data is formatted according to the OC3, OC12, OC48, Ethernet, or Gigabit Ethernet protocols.

### ***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

Claims 1, 2, 6, 8, 11-14, 16-17 are allowed. The prior art of record does not teach the claimed invention, as follows.

The prior art does not teach a telecommunications device or a method of routing using the telecommunications device comprising: logical nodes controlling data processors of a particular service provider; each data processor associated with a physical slot location in the device; wherein a data routing path from a first physical slot location to a second physical slot location in the telecommunications device is mapped to a data routing path from a third physical slot location to a fourth physical slot location; and wherein each logical node is associated with a distinct network service provider and routes data for the network service provider using the one or more data processors included in the logical node according to the data routing paths.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is included in form PTO 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on 571-272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

/Kenny S Lin/

Primary Examiner, Art Unit 2452